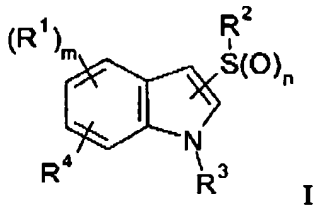
Claim Listing

1. (Original) A compound of the formula I:



I

or a pharmaceutically acceptable salt or prodrug thereof,

wherein:

m is from 0 to 3;

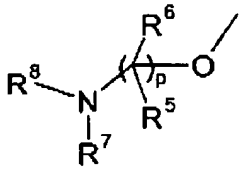
n is from 0 to 2;

each R^1 is independently hydrogen, halo, alkyl, baloalkyl, hydroxy, heteroalkyl, nitro, alkoxy, cyano, $-NR^aR^b$, $-S(O)_s-R^a$, $-C(=O)-NR^aR^b$, $-SO_2-NR^aR^b$, $-N(R^a)-C(=O)-R^b$, or $-C(=O)-R^a$, where each of R^a and R^b is independently hydrogen or alkyl, or two of R^1 may form an alkylene or alkylene dioxy group;

R^2 is aryl or heteroaryl;

R^3 is hydrogen or alkyl; and

R^4 is of the formula:



wherein:

p is 2 or 3; and

R^5, R^6, R^7 and R^8 each independently is hydrogen or alkyl, or one of R^5 and R^6 together with one of R^7 and R^8 and the atoms therebetween may form a heterocyclic ring of 4 to 7 members, or R^7 and R^8 together with their shared nitrogen may form a heterocyclic ring of 4 to 7 members; or one of R^7 and R^8 together with R^3 and the atoms therebetween may form a heterocyclic ring of 4 to 7 members.

2. (Original) The compound of claim 1, wherein the radical $-S(O)_n-R^2$ is at the 2-position of the indole ring system.

3. (Original) The compound of claim 1, wherein the radical $-S(O)_n-R^2$ is at the 3-position of the indole ring system.

4. (Original) The compound of claim 1, wherein R^4 is at the 7- position of the indole ring system.

5. (Original) The compound of claim 4, wherein R^2 is optionally substituted phenyl.

6. (Original) The compound of claim 4, wherein m is 0.

7. (Original) The compound of claim 4, wherein n is 2.

8. (Original) The compound of claim 4, wherein n is 0.

9. (Original) The compound of claim 4, wherein R^2 is 2-halophenyl, 3-halopheny, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-alkoxyphenyl, 3-alkoxypheny, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.

10. (Original) The compound of claim 4, wherein R^2 is 4-chlorophenyl, 2,3-dichlorophenyl, 2-chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.

11. (Original) The compound of claim 4, wherein R^4 is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-methoxy, optionally substituted piperidin-4-yloxy, optionally substituted azetidin-3-yl-methoxy, aminoethoxy, methylaminoethoxy or dimethylaminoethoxy.

12. (Original) The compound of claim 4, wherein p is 2 and R^5 and R^6 are hydrogen.

13. (Original) The compound of claim 12, wherein R^7 and R^8 together form a five- or six-membered ring.

14. (Original) The compound of claim 12, wherein one of R^7 and R^8 is hydrogen and the other is alkyl.

15. (Original) The compound of claim 12, wherein R^7 and R^8 are alkyl.

16. (Original) The compound of claim 4, wherein p is 1, R^5 and R^7 are hydrogen, and R^6 and R^8 together form a five- or six-membered heterocyclic ring.

17. (Original) The compound of claim 1, wherein R^4 is at the 4- position of the indole ring system.

18. (Original) The compound of claim 17, wherein R^2 is optionally substituted phenyl.

19. (Original) The compound of claim 17, wherein m is 0.

20. (Original) The compound of claim 17, wherein n is 2.

21. (Original) The compound of claim 17, wherein n is 0.

22. (Original) The compound of claim 17, wherein R^2 is 2-halophenyl, 3-halopheny, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-alkoxyphenyl, 3-alkoxypheny, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.

23. (Original) The compound of claim 17, wherein R^2 is 4-chlorophenyl, 2,3-dichlorophenyl, 2-chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.

24. (Original) The compound of claim 17, wherein R^4 is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-methoxy, optionally substituted piperidin-4-yloxy, methylaminoethoxy or dimethylaminoethoxy.

25. (Original) The compound of claim 3, wherein R^4 is at the 7-position of the indole ring system.

26. (Original) The compound of claim 25, wherein R^2 is optionally substituted phenyl.

27. (Original) The compound of claim 25, wherein m is 0.

28. (Original) The compound of claim 25, wherein n is 2.

29. (Original) The compound of claim 25, wherein n is 0.

30. (Original) The compound of claim 25, wherein R^2 is 2-halophenyl, 3-halopheny, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-alkoxyphenyl, 3-alkoxypheny, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.

31. (Original) The compound of claim 25, wherein R^2 is 4-chlorophenyl, 2,3-dichlorophenyl, 2-chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.

32. (Original) The compound of claim 25, wherein R^4 is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-yl-methoxy, optionally substituted piperidin-4-yloxy, optionally substituted azetidin-3-yl-methoxy, aminoethoxy, methylaminoethoxy or dimethylaminoethoxy.

33. (Original) The compound of claim 25, wherein p is 2 and R^5 and R^6 are hydrogen.

34. (Original) The compound of claim 33, wherein R^7 and R^8 together form a five- or six-membered heterocyclic ring.

35. (Original) The compound of claim 33, wherein one of R^7 and R^8 is hydrogen and the other is alkyl.

36. (Original) The compound of claim 33, wherein R^7 and R^8 are alkyl.

37. (Original) The compound of claim 25, wherein p is 1, R^5 and R^7 are hydrogen, and R^6 and R^8 together form a five- or six-membered heterocyclic ring.

38. (Original) The compound of claim 3, wherein R^4 is at the 4- position of the indole ring system.

39. (Original) The compound of claim 38, wherein R^2 is optionally substituted phenyl.

40. (Original) The compound of claim 38, wherein m is 0.

41. (Original) The compound of claim 38, wherein n is 2.

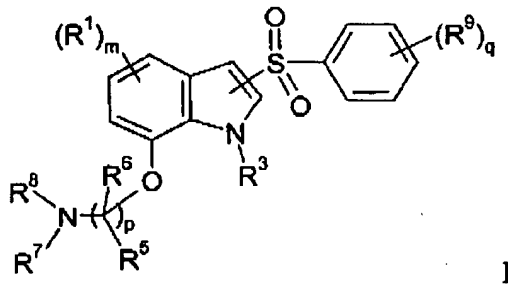
42. (Original) The compound of claim 38, wherein n is 0.

43. (Original) The compound of claim 38, wherein R^2 is 2-halophenyl, 3-halopheny, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-alkoxyphenyl, 3-alkoxypheny, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.

44. (Original) The compound of claim 38, wherein R^2 is 4-chlorophenyl, 2,3-dichlorophenyl, 2-chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.

45. (Original) The compound of claim 38, wherein R^4 is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-methoxy, optionally substituted piperidin-4-yloxy, optionally substituted azetidin-3-yl-methoxy, aminoethoxy, methylaminoethoxy or dimethylaminoethoxy.

46. (Original) The compound of claim 1, wherein said compound is of the formula IV:



IV

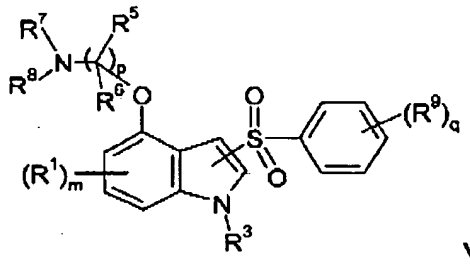
wherein:

m, p, R^1, R^3, R^5, R^6, R^7 and R^8 are as defined in claim 1;

q is from 0 to 4; and

each R^9 is independently hydrogen, halo, alkyl, haloalkyl or alkoxy.

47. (Original) The compound of claim 1, wherein said compound is of the formula VI:



VI

wherein:

m, p, R^1, R^3, R^5, R^6, R^7 and R^8 are as defined in claim 1;

q is from 0 to 4; and

each R^9 is independently hydrogen, halo, alkyl, haloalkyl or alkoxy.

48. (Original) The compound of claim 1, wherein said compound is selected from:

3-Phenylsulfanyl-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-Benzenesulfonyl-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(3-Chloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)- 1*H*-indole;

3-(4-Chloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(2,3-Dichloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(2-Chloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(3,4-Dichloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(2-Fluoro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(3-Fluoro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(3-Methoxy-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

3-(2-Methoxy-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

2-(3-Benzenesulfonyl-1*H*-indol-7-yloxy)-ethyl]-dimethyl-amine;

{2-[3-(2-Methoxy-benzenesulfonyl)-1*H*-indol-7-yloxy]-ethyl}-dimethyl-amine;

{2-[3-(2-Fluoro-benzenesulfonyl)-1*H*-indol-7-yloxy]-ethyl}-dimethyl-amine;

2-[3-(2-Fluoro-benzenesulfonyl)-1*H*-indol-7-yloxy{]-ethyl}-methyl-amine;

[2-(3-Benzenesulfonyl-1*H*-indol-7-yloxy)-ethyl]-methyl-amine;

2-(3-Benzenesulfonyl-1-methyl-1*H*-indol-7-yloxy)-ethyl]-methyl- amine;

(S)-3-(2-Fluoro-benzenesulfonyl)-7-(pyrrolidin-2-ylmethoxy)-1*H*-indole;

3-Benzenesulfonyl-7-(piperidin-4-yloxy)-1*H*-indole;

[2-(2-Benzenesulfonyl-1*H*-indol-4-yloxy)-ethyl]-methyl-amine;

2-(2-Benzenesulfonyl-1*H*-indol-7-yloxy)-ethyl]-methyl-amine;

3-(2,5-Dichloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;

2-Benzenesulfonyl-4-(2-pyrrolidin-1-yl-ethoxy)-1H-indole;

4-(Azetidin-3-ylmethoxy)-2-benzenesulfonyl-1H-indole; and

2-[3-(2-Fluoro-benzenesulfonyl)-1H-indol-7-yloxy]-ethylamine.

49. (Original) A pharmaceutical composition comprising an effective amount of the compound of claim 1 in admixture with a pharmaceutically acceptable carrier.

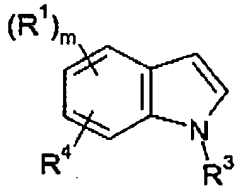
50. (Withdrawn) A method for treating a central nervous system disease state in a human subject, said method comprising administering to said subject a therapeutically effective amount of a compound of claim 1.

51. (Withdrawn) The method of Claim 50, wherein the disease state is selected from psychoses, schizophrenia, manic depressions, neurological disorders, memory disorders, attention deficit disorder, Parkinson's disease, amyotrophic lateral sclerosis, Alzheimer's disease and Huntington's disease.

52. (Withdrawn) A method for treating a disorder of the gastrointestinal tract in a subject, said method comprising administering to said subject a therapeutically effective amount of a compound of claim 1.

53. (Withdrawn) A method for producing a substituted indole, comprising:

(a) contacting an indole compound of the formula:



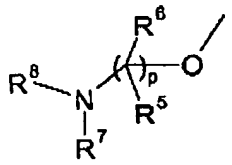
wherein:

m is from 0 to 3;

each R^1 is independently hydrogen, halo, alkyl, haloalkyl, hydroxy, heteroalkyl, nitro, alkoxy, cyano, $-NR^aR^b$, $-S(O)_s-R^a$, $-C(=O)-NR^aR^b$, $-SO_2-NR^aR^b$, $-N(R^a)-C(=O)-R^b$, or $-C(=O)-R^a$, where each of R^a and R^b is independently hydrogen or alkyl;

R^3 is hydrogen or alkyl; and:

R^4 is of the formula:

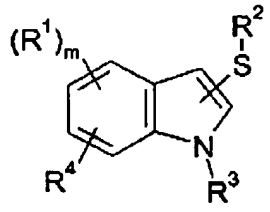


wherein:

p is from 0 to 3; and

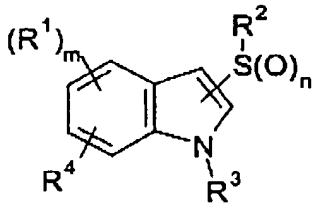
R^5, R^6, R^7 and R^8 each independently is hydrogen or alkyl, or one of R^5 and R^6 together with one of R^7 and R^8 form a heterocyclic ring of 4 to 7 members, or R^7 and R^8 together form a heterocyclic ring of 4 to 7 members;

with a disulfide of the formula R^2-S-S-R^2 wherein R^2 is aryl or heteroaryl, to produce a sulfanylated indole compound of the formula:



; and

(b) optionally oxidizing the sulfanylated indole **b** to produce a substituted indole of the formula:



;

wherein n is 1 or 2.